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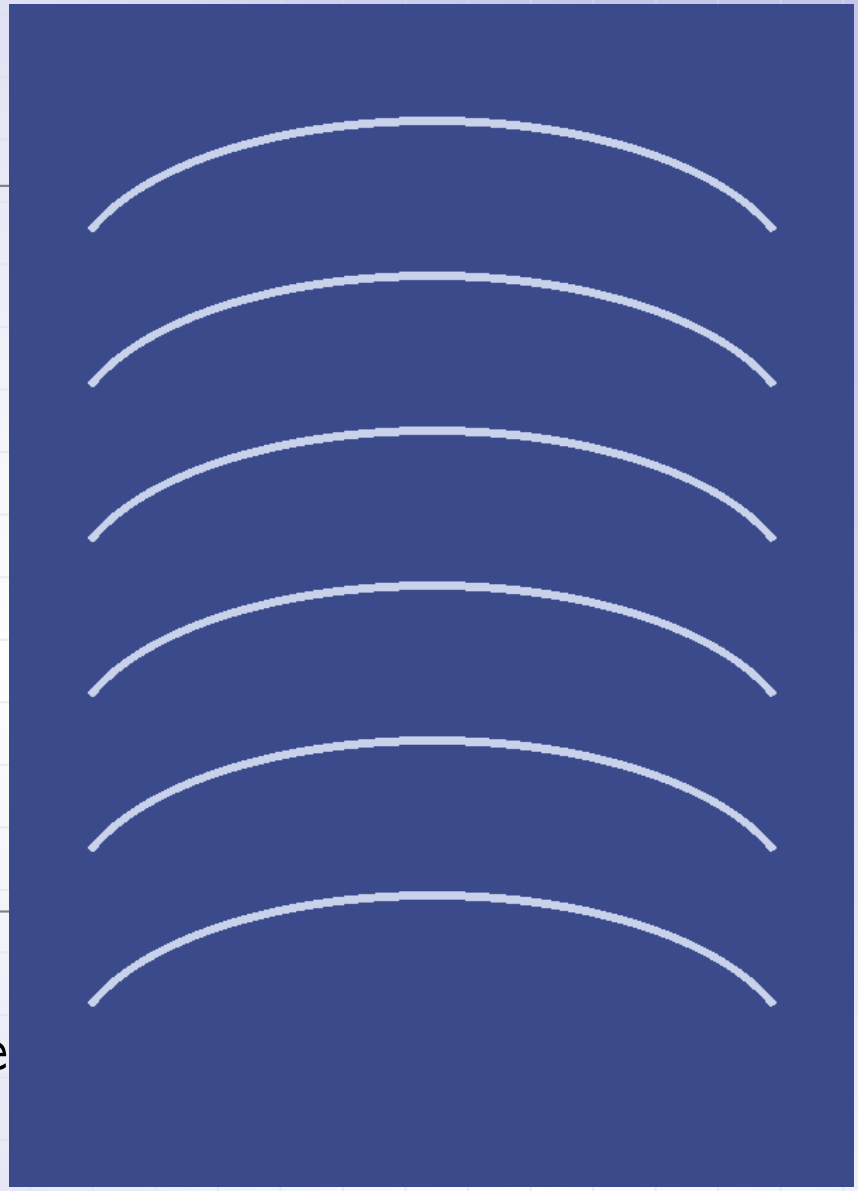
Bridge Inspection Drones

A two-year pilot



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1 Why Drones
2 Findings
3 Recommendation

The inspection backlog

- 340 bridges are due a detailed inspection this year
- Manual rope-access inspection covers roughly 40 bridges a year
- Drone-assisted inspection is the only way to close the gap

1 Why Drones

1.1 Pilot Design

Twelve crossings, two methods

Manual

- Rope-access teams
- Full tactile inspection

Drone

- High-res visual + thermal
- No lane closures needed

1 Why Drones
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Defects found, by method

Defect class	Manual	Drone
Surface cracking	28	31
Corrosion staining	19	22
Joint seal failure	11	9

Drone inspection found more surface-level defects; manual inspection remained better at joint seals hidden from camera angles.

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Where we land

1. Use drones for the first-pass screening on all 340 bridges
2. Reserve rope-access teams for joints and confirmed defects
3. Re-evaluate lidar-based crack-width measurement next cycle